

1     What is claimed is:

2     1.    An umbrella frame comprising:

- 3           a)    an elongated pole member,
- 4           b)    a main hub member movably mounted on said pole and
- 5                 positionable along the length thereof,
- 6           c)    a plurality of rib members structured to support an
- 7                 umbrella canopy and interconnected to said pole,
- 8           d)    a plurality of strut members movably connected to said
- 9                 main hub member and at least partially movable
- 10                therewith along said pole,
- 11           e)    at least one collar member movably interconnecting at
- 12                 least one of said plurality of strut members to a
- 13                 correspondingly positioned rib member, and
- 14           f)    said one collar member including a channel member
- 15                 disposed in receiving relation to said correspondingly
- 16                 positioned rib member.

17    2.    An umbrella frame as recited in claim 1 wherein said collar

18           member further includes a slot portion disposed in

19           receiving relation to said one strut member.

20    3.    An umbrella frame as recited in claim 2 wherein said collar

21           member pivotally connects said one strut member and said

22           correspondingly positioned rib member.

23    4.    An umbrella frame as recited in claim 2 wherein said collar

24           member further comprises a divider wall disposed between

25           said channel portion and said slot portion.

- 1       5.    An umbrella frame as recited in claim 4 wherein said collar  
2           member further comprises a pair of spaced apart sidewalls  
3           disposed to at least partially define said channel portion  
4           and said slot portion between said sidewalls.
- 5       6.    An umbrella frame as recited in claim 5 wherein boundaries  
6           of both said channel portion and said slot portion are  
7           further defined by said divider wall.
- 8       7.    An umbrella frame as recited in claim 1 wherein said collar  
9           member further comprises a pair of spaced apart sidewalls  
10          disposed and configured to at least partially define said  
11          channel portion.
- 12      8.    An umbrella frame as recited in claim 7 further comprising  
13          a divider wall extending between said sidewalls and  
14          cooperatively structured therewith to further define said  
15          channel portion.
- 16      9.    An umbrella frame as recited in claim 7 wherein each of  
17          said sidewalls includes a top edge normally disposed out of  
18          contact with the canopy.
- 19      10.   An umbrella frame as recited in claim 1 further comprising  
20          a plurality of collar members, each collar member pivotally  
21          interconnecting a different one of said strut members to a  
22          correspondingly positioned one of said rib members; each of  
23          said collar members including a channel portion disposed in  
24          receiving relation to said corresponding rib member.
- 25      11.   An umbrella frame as recited in claim 10 wherein each of

1       said collar members comprises a divider wall and two spaced  
2       apart side walls, said divider wall disposed in  
3       interconnecting relation between said two sidewalls.

4       12. An umbrella frame as recited in claim 10 wherein each of  
5       said collar members comprises a slot portion disposed in  
6       receiving relation to a respective one of said strut  
7       members, said divider wall disposed between and in  
8       segregating relation to said channel portion and said slot  
9       portion.

10       13. An umbrella frame as recited in claim 1 wherein said  
11       channel portion comprises an interior substantially  
12       corresponding to a configuration of an exterior of a  
13       respective one of said rib members.

14       14. An umbrella frame comprising:

- 15       a) a pole member having a longitudinal axis, a bottom end  
16       and a top end;
- 17       b) a main hub member movably secured about said pole  
18       member and capable of sliding between said bottom end  
19       and said top end of said pole member, said main hub  
20       member also capable of rotating about said  
21       longitudinal axis of said pole member,
- 22       c) a secondary hub member secured to said pole member  
23       near said top end of said pole member, said secondary  
24       hub member capable of rotating about said longitudinal  
25       axis of said pole member,

- d) a plurality of rib members pivotally secured to said secondary hub member,
  - e) a plurality of strut members each having an inner end and an outer end, said inner ends being pivotally secured to said main hub member, said outer end of each of said strut members being pivotally secured to a respective one of said rib members, and
  - f) means for maintaining said main hub member in a vertical position along said pole member while permitting rotation of said main hub member about said longitudinal axis of said pole member.
15. The umbrella frame of claim 14 wherein said means for maintaining said main hub member in said vertical position comprise a cam cleat member.
16. The umbrella frame of claim 14 wherein said means for maintaining said main hub member in said vertical position comprise a stabilizer arm having a first end and a second end, said first end being secured to one of said strut members and said second end being operably coupled to said pole member.
17. An umbrella frame comprising:
- a) a pole member having a longitudinal axis, a bottom end and a top end,
  - b) said pole member including a bolt extending from said top end,

- c) a secondary hub member supported on said pole member near said top end thereof, said secondary hub member including a central cavity, said central cavity having a first diameter sized to receive at least said top end of said pole member therein and having a second diameter sized to receive said bolt therein such that said secondary hub member is capable of rotating about said longitudinal axis of said pole member,
- d) a main hub member movably secured about said pole member and capable of sliding between said bottom end and said top end of said pole member and further capable of rotating about said longitudinal axis of said pole member,
- e) a plurality of rib members pivotally secured to said secondary hub member,
- f) a plurality of strut members each having an inner end and an outer end, said inner ends being pivotally secured to said main hub member, said outer end of each of said strut members being pivotally secured to a respective one of said rib members, and
- g) means for maintaining said main hub member in position along said pole member while permitting rotation of said main hub member about said longitudinal axis of said pole member.

18. The umbrella frame of claim 17 wherein said means for

1 maintaining said main hub member in said position comprise  
2 a cam cleat member.

3 19. The umbrella frame of claim 17 wherein said means for  
4 maintaining said main hub member in said position comprise  
5 a stabilizer arm having first and second ends, said first  
6 end being secured to one of said strut members and said  
7 second end being operably coupled to said pole member.

8 20. An umbrella frame, comprising:

- 9 a) a pole member having a longitudinal axis and a top end  
10 and a bottom end,
- 11 b) a main hub member secured about said pole member, said  
12 main hub member capable of sliding between said bottom  
13 end and said top end,
- 14 c) a secondary hub member secured to said pole member  
15 near said top end of said pole member,
- 16 d) means for supporting a canopy member,
- 17 e) a pulley system for raising and lowering said main hub  
18 member along said pole member,
- 19 f) means for maintaining said main hub member in a  
20 vertical position along said pole member while  
21 permitting rotation of said main hub member about said  
22 longitudinal axis of said pole member,
- 23 g) said main hub member including a top surface and a  
24 bracket member secured to said top surface of said  
25 main hub member,

- h) said pulley system including at least one pulley member secured to said secondary hub member,
- i) a line member having a first end and a second end, said first end being secured to said bracket member, said line member cooperatively engaging said at least one pulley member and extending downwardly from said at least one pulley member towards said bottom end of said pole member, and
- j) said means for maintaining said hub member in said vertical position including a cam cleat member secured to an exteriorly exposed surface of said main hub member, wherein said line member cooperatively engages said cam cleat as it extends downwardly from said at least one pulley member.

21. The umbrella frame of claim 20 wherein said cam cleat member has a rested position and includes a pair of cams pivotally secured to said exteriorly exposed surface of said main hub member, said pair of cams each having a toothed side edge, said toothed side edges facing one another in said rested position of said cam cleat member.

22. The umbrella frame of claim 21 wherein said cam cleat member further includes a retaining bracket secured to each of said pair of cams.

23. An umbrella frame, comprising:

- a) a pole member having a longitudinal axis and a top end

1                   and a bottom end,

2           b)    a main hub member secured about said pole member, said  
3                   main hub member capable of sliding between said bottom  
4                   and said top ends,

5           c)    a secondary hub member secured to said pole member  
6                   near said pole top end,

7           d)    means for supporting a canopy member, and

8           e)    a stabilizer arm having a first end and a second end,  
9                   said first end being secured to said supporting means,  
10                  said stabilizer arm including means for operably  
11                  coupling said second end to said pole member.

12    24.   The umbrella frame of claim 23 wherein said pole member  
13           includes a stabilizer opening proximate said bottom end and  
14           wherein said means for operably coupling includes a  
15           securing member insertable within said stabilizer opening.

16    25.   The umbrella frame of claim 23 wherein said means for  
17           operably coupling includes a locking strap member.